ered as indicating possible hypothyroidism. The attending physician is immediately notified and a sample of serum for a thyroid stimulating hormone (TSH) study is requested. If the TSH level is elevated, a presumptive diagnosis of hypothyroidism is made. In hypothyroid infants a complete study is necessary to determine if the condition is transient or if it is primary hypothyroidism, pituitary or hypothalamic hypothyroidism, a deficiency of thyroxine binding globulin (TBG) or end-organ defect.

There is little question that identification of hypothyroidism in infants is of importance to state and federal governments because of the enormous costs of lifetime care of persons in whom the condition has not been identified. A program of required T<sub>4</sub> testing of newborn infants appears indicated by the significant incidence of this disorder. There is, however, considerable question about the advisability of establishing large government operated laboratories for diagnosis and counseling centers for care. This incursion into private medical practice does not seem needed or justified.

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## Pap Smears—Lest We Forget

RECENT CRITICISM of cost effectiveness of routine Papanicolaou (Pap) tests has perhaps dampened the enthusiasm of the public, and in some cases physicians, about the need for routine gynecologic Pap tests. There may be value, therefore, in reviewing the history of this simple procedure and its effect on carcinoma of the uterine cervix.

From 1930 to 1974 age-adjusted cancer death rates for females indicated a drop in deaths from cancer of the uterus from first to fourth position, a decrease from 27 per 100,000 females to 8 per 100,000 females. In well-documented studies there has been a pronounced decrease in the cases of invasive cancer. In a 1956 study, 41 percent of the lesions detected were invasive. A 1979 study showed a 9 percent incidence of invasive lesions. From these data it becomes clear that tumors are being detected much earlier and in clinical settings where appropriate treatment for cure is possible. Routine Pap tests undoubtedly contribute to this favorable trend.

On the other hand, mortality data presented in a Minnesota study indicated 66 deaths in 1978 from cervical cancer (Cervical cancer deaths-Minnesota residents 1959-1978. Minneapolis, Minnesota Department of Health Center for Health Statistics, unpublished data). In spite of the widespread use of routine Pap tests, cervical cancer is still very much with us. The factors involved contributing to the continued incidence of death resulting from cancer of the uterine cervix are complex. Included are not carrying out Pap tests or pelvic examinations, inadequate or inappropriate treatment and inadequate follow-up. In 75 percent of the cases, patients are apparently responsible for inadequate care either by refusing pelvic examination or by not visiting a physician for routine annual examination or follow-up examination. In the other 25 percent of the cases physician responsibility was indicated in that pelvic examinations were not done, Pap tests were not carried out, or the reported histologic or cytologic findings were misinterpreted. The need for continued emphasis on physical examination, Pap tests and careful continued follow-up remains clear and cannot be overemphasized.

In recent years, cytology has become more of a diagnostic rather than a screening procedure, and the use of colposcopy in obtaining cervical biopsy specimens when there are abnormal Pap test results has increased the accuracy to approximately 99 percent. There is no excuse which can be justified by lack of cost effectiveness to forgive one undetected cancer of the uterine cervix.

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## Recent Advances in Perinatal Clinical Chemistry

ONE OF THE most important decisions an obstetrician must make is whether or not to let nature take its course and have a baby delivered by natural labor or to preempt nature by inducing delivery. That decision is usually made on the basis of the maternal condition, the health of the fetus and the maturity of the fetus. Recent advances in clinical chemistry have contributed to